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AUTHOR Cunningham, Grover; Pierce-Jones, John
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ABSTRACT

In this study, a group of first graders who had attended full-year Head Start were compared cognitively to a group of first graders who had been eligible for Head Start but did not attend. Results of the study may be suspect because the children who participated in Head Start were selected from the most deprived of those eligible; therefore study groups may not have been comparable. Both groups were tested on the Stanford-Binet and the Preschool Inventory before and after first grade and on the Gates-MacGinitie Reading Test, Primary A, after first grade. Results indicated that at the beginning of the year the groups were the same in some areas and different in others. At the end of the first grade there were no significant differences between the two groups. The experimental group seemed to have a higher rate of gain than the control, but the difference was seldom significant. It is concluded that there is a tenuous case for saying that the similar scores of the two groups upon completion of first grade indicate the academic effectiveness of Head Start because the selection process placed the more deprived children in the experimental group. (MH)

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CHILD DEVELOPMENT EVALUATION AND RESEARCH CENTER

John Pierce-Jones, Ph.D., Director

The University of Texas at Austin

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A COMPARISON OF HEAD START CHILDREN WITH A GROUP OF HEAD START
ELIGIBLES AFTER ONE YEAR IN ELEMENTARY SCHOOL

Grover Cunningham

John Pierce-Jones

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of Economic Opportunity, Project Head Start, and The University of
Texas at Austin.

**A Comparison of Head Start Children
with a Group of Head Start
Eligibles After One Year
in Elementary School**

**Grover Cunningham
John Pierce-Jones**

The University of Texas at Austin

The purpose of this study was to compare the progress in first grade of a group of Head Start children with a sample drawn from Head Start eligible children. Administrators of the program under study have told us that Head Start children are selected from the most deprived of those eligible, and, hence, we start with the caveat that our groups may not be comparable because of the selection process in existence. The impression of the administrators also was that while Head Starters improved as a result of Head Start in health and their adjustment to school, they did not improve academically during their first year in school any more than their Head Start eligible peers. However, they did have the impression that Head Starters performed as well as their peers, which in itself was seen as an accomplishment, since Head Starters were selected from eligibles who were most deprived.

In line with these observations, it was hypothesized that a sample of Head Start children selected from the most deprived of those eligible would be comparable cognitively to a group of Head Start eligibles at the conclusion of their first year in elementary school.

Method

Sample

The subjects were selected from Head Start eligibles, half of whom attended a full year Head Start program (experimentals) and the other half did not (Controls). Table 1 sets out the composition of the groups:

TABLE 1

Composition of the Sample

	<u>Experimentals</u>	<u>Controls</u>
Sex		
Males	43	39
Females	30	35
Age at 1st Testing (in months)		
Mean	77.64	77.24
Standard Deviation	4.23	3.84
Age at 2nd Testing (in months)		
Mean	87.97	89.13
Standard Deviation	3.97	3.46

The Tests

The testing program made use of the Stanford-Binet, Preschool Inventory, and the Gates-MacGinitie Reading Test, Primary A. From these tests the following scores are obtained:

Stanford-Binet
 Mental Age
 IQ
 Preschool Inventory
 Personal-Social Responsiveness
 Associative Vocabulary
 Concept Activation - Numerical
 Concept Activation - Sensory
 Total
 Gates-MacGinitie
 Vocabulary
 Comprehension

Procedure

Both groups were administered the Stanford-Binet and Preschool Inventory prior to entry into the first grade and at the close of their first year in school. The Gates-MacGinitie Reading Test, Primary A was administered to both groups upon completion of the first grade in elementary school.

Results

Our first question was: How well matched are the groups at the start of their first grade experience? Table 2 points out the fact that on the objective measures at hand the groups are probably drawn from the same population. Experimentals and Controls were statistically significantly different groups at entry to first grade on the Concept Activation - Numerical scale of the Preschool Inventory.

TABLE 2
Comparison of the Groups at
Entry to First Grade

		<u>Means</u>		
	<u>Experimentals</u>	<u>Controls</u>	<u>F</u>	<u>P</u>
	(N = 72)	(N = 70)		
Stanford-Binet				
Mental Age (months)	68.32	70.10	1.63	.20
IQ	87.27	89.76	1.45	.23
Preschool Inventory				
(Possible Score)				
(26) Personal-Social Responsiveness	21.06	20.64	.52	.52
(21) Associative Vocabulary	12.63	13.09	.34	.57
(19) Concept Activation - Numerical	11.55	12.90	5.72	.02
(19) Concept Activation - Sensory	15.45	16.19	2.15	.14
(85) Total	60.85	63.13	1.28	.26

Table 3 demonstrates that there were no significant differences between the two groups upon completion of the first grade. A former difference in favor of Controls on one scale of the Preschool Inventory vanished.

TABLE 3
Comparison of the Groups
Upon Completion of First Grade

	<u>Means</u>		<u>F</u>	<u>P</u>
	<u>Experimentals</u> (N = 72)	<u>Controls</u> (N = 68)		
Stanford-Binet				
Mental Age (months)	79.63	79.60	.00	.99
IQ	87.65	88.76	.29	.60
Preschool Inventory (Possible Score)				
(26) Personal-Social Responsiveness	23.03	23.32	.65	.57
(21) Associative Vocabulary	16.65	15.96	1.29	.26
(19) Concept Activation - Numerical	15.26	15.66	.95	.67
(19) Concept Activation - Sensory	18.04	17.25	1.92	.16
(85) Total	72.24	72.68	.09	.77
Gates-MacGinitie Reading Test				
Vocabulary	42.18	42.38	.02	.90
Comprehension	41.84	43.65	1.28	.26

Table 4 demonstrates that the rate of gain of the two groups is predominantly in favor of the Experimentals. The rate of gain is statistically significant on only two scales of the Preschool in favor of Experimentals.

TABLE 4
Gains of the Groups Between
Testings

	<u>Gains</u>		
	<u>Experimentals</u> (N = 71)	<u>Controls</u> (N = 65)	<u>P</u>
Stanford-Binet			
Mental Age	11.14	9.41	.18
IQ	.29	- .91	.53
Preschool Inventory			
Personal-Social Responsiveness	1.84	2.49	.19
Associative Vocabulary	3.85	2.78	.11
Concept Activation - Numerical	3.60	2.52	.02
Concept Activation - Sensory	2.41	1.51	.02
Total	10.77	9.00	.20

Discussion

While Head Start seems to accomplish little for the cognitive functioning of the children involved, when compared to their eligible non-Head Start peers, this must be interpreted in light of the selection process probably operating as between the two groups. This is to say that the Head Start children were perhaps more deprived initially than the control group and actually gained ground to occupy a position of parity with the control group. This is a tenuous proposition, however, and the data presently available to us are inadequate to test it. Too, the Tables indicate a little more improvement in the Experimentals than in the Controls.